

Formula Mass and Molarity

Formula Mass – take the sum of the atomic masses for each atom in the compound

***Units are grams/mole

Example: C_2H_6

Problem: Find the formula mass for $\text{Ca}(\text{NO}_3)_2$

Problem: How much does 3.2 moles of C_2H_6 weigh?

Problem: How many moles are in 45 grams of C_2H_6 ?

Practice:

1. Convert 87 grams of MgO to moles
2. Convert 3.4 moles of CaCO_3 to grams
3. Convert 23 grams of NaCl to moles
4. Convert 2.2 moles of LiF to grams

Molarity – moles of solute per liter of solution (moles/liter)

Problem: What is the molarity of a solution if 15.0 g of KBr is dissolved in 250 mL of water?

Problem: How many grams of KF are needed to make 150 mL of a 0.30M solution of KF?